

# New York State Department of Transportation

## Yellow Flag NB2228W020

By: Ben Colangelo  
Flag Date: April 05, 2022

Superseding Information:  
This flag supersedes: YF NB2197W019

### Structure Information

**BIN: 1065318**  
**Feature Carried:** 278I278IX2M23027  
**Feature Crossed:** 6TH AVENUE  
**Orientation:** 8 - NORTHWEST  
**Region:** 11 - NEW YORK CITY  
**County:** KINGS  
**Political Unit:** City of NEW YORK  
**Approximate Year Built:** 1962  
**Posted Load Matches Inventory :** Yes  
**Bridge Load Posting (Tons) :** Not Posted for Load  
**Primary Owner:** New York State Department of Transportation  
**Primary Maintenance Responsibility:** 12 - State - Subcontracted to another Party  
**Typical or Main Span Type:** 3 - Steel, 02 - Stringer/Multi-Beam or Girder  
This Bridge is not a Ramp  
**Number of Spans:** 322

### Verbal Notification Information

**Person Notified:** Heinz Joachim, P.E.  
**Date:** April 05, 2022 10:00:00 AM  
**Of:** NYSDOT Region 11

### Signature Information

**Signature:** Ben Colangelo, P.E. 068498  
**Date:** May 18, 2022  
**Reviewed By:** Robert Kemp  
**Date:** May 18, 2022

**Attachments:** 7

**Flagged Elements**

Parent Element	Element	Total Quantity	Unit
<b>Span Number : 306</b>			
	152 - Steel Floor Beam	474	ft

**Flagged Condition Description**

Yellow Flag No. NB2228W020

Location: Span 306 at Pier 306, Floorbeam FB4 between Stringers S5 and S6 (Photo 1).

Description: Floorbeam FB4 bottom flange exhibits 100% section loss over a 3"L x 2"W area and 1" wide area of 100% edge section loss for 6' on the end portion of the floorbeam inside the joint at mid-span (Photo 2 and 4). At this location, the FB4 bottom flange exhibits overall section loss ranging from 18% to 21% due to the difference configuration of the bottom flange (Photo 3).

There has been no significant change since the previous inspection.

This Yellow Flag No. NB2228W020 is superseding Yellow Flag No. NB2197W019.

Notes:

1.The FB4 exhibits pack rust up to 1" high between the bottom flange and cover plate for the full length between Girders G1 and G2. End side of the floorbeam exhibits up to 4"H x full width corrosion hole in the bottom of the stiffeners. (Photo 3).

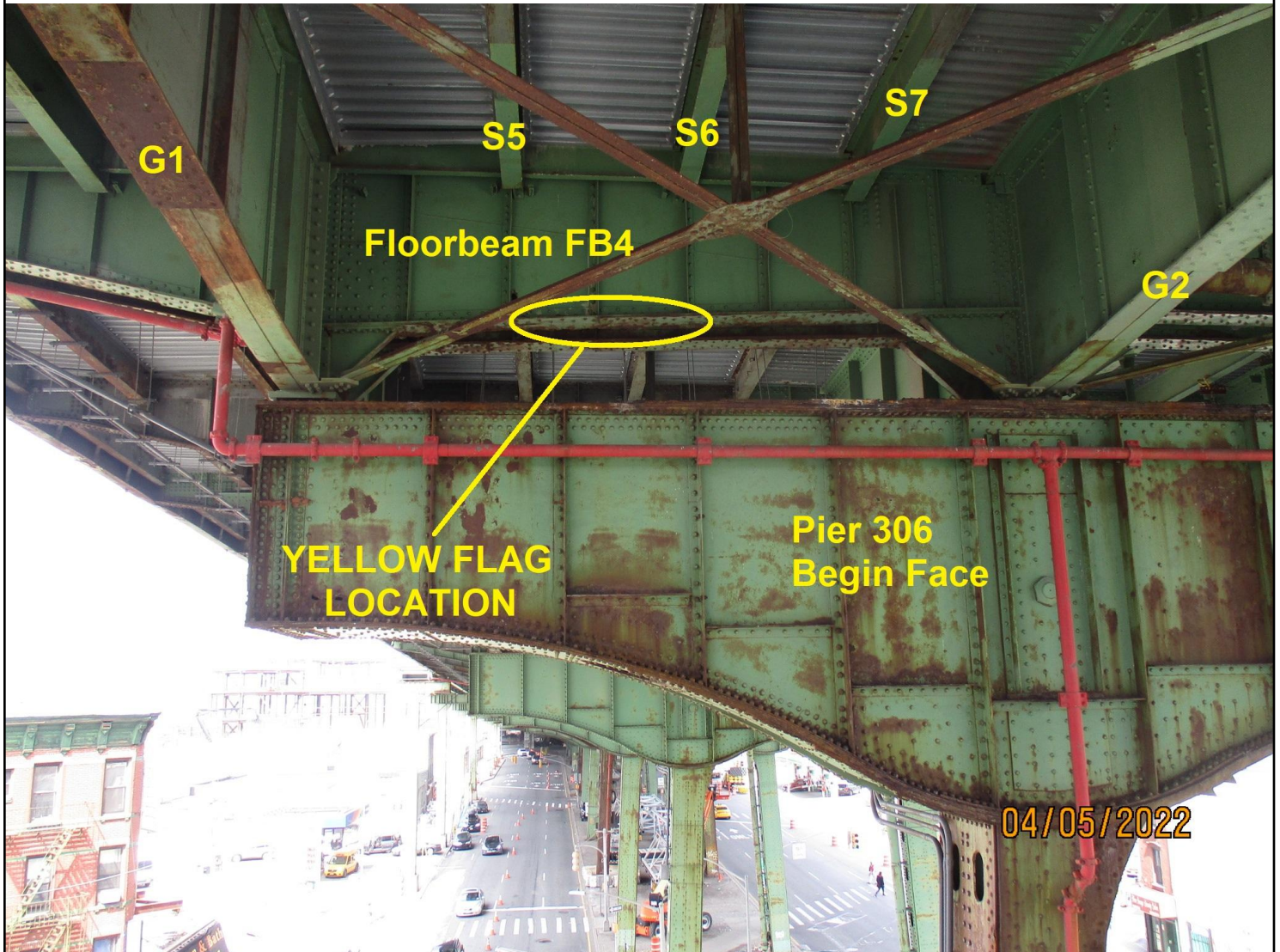
2.Section loss was measured using pitting depth gauge, ruler, and digital caliper.

3.This location was accessed using a 135' Manlift with two left lanes closure on Hamilton Ave Westbound near Court Street.

**Flag Photographs**

Photo Number: 1

Photo Filename: IMG\_3606.JPG

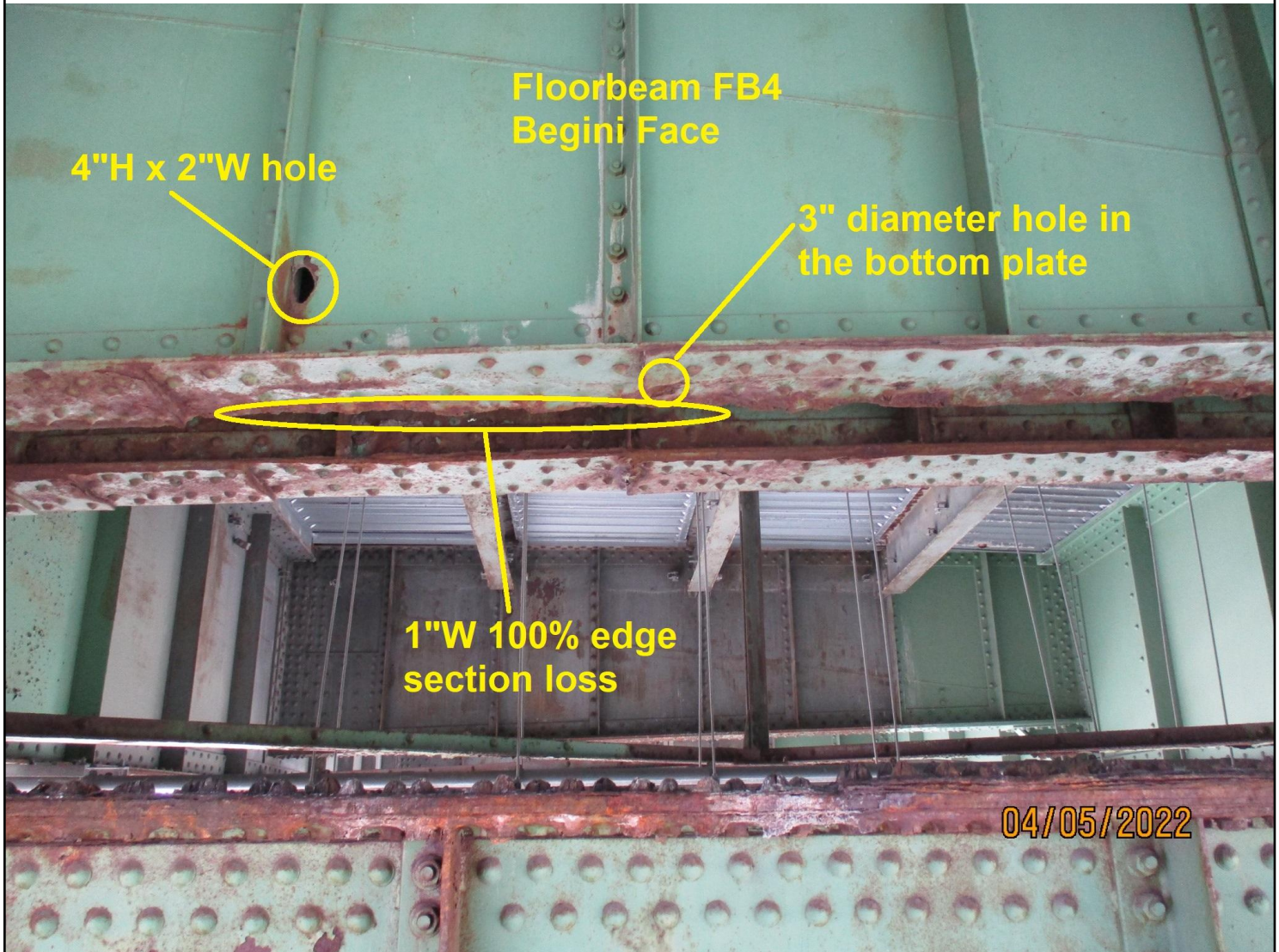


**Attachment Description:** Span 306 at Pier 306 between Girder G1 and G2. General view of the flagged location. Looking End.



Photo Number: 2

Photo Filename: IMG\_3598.JPG

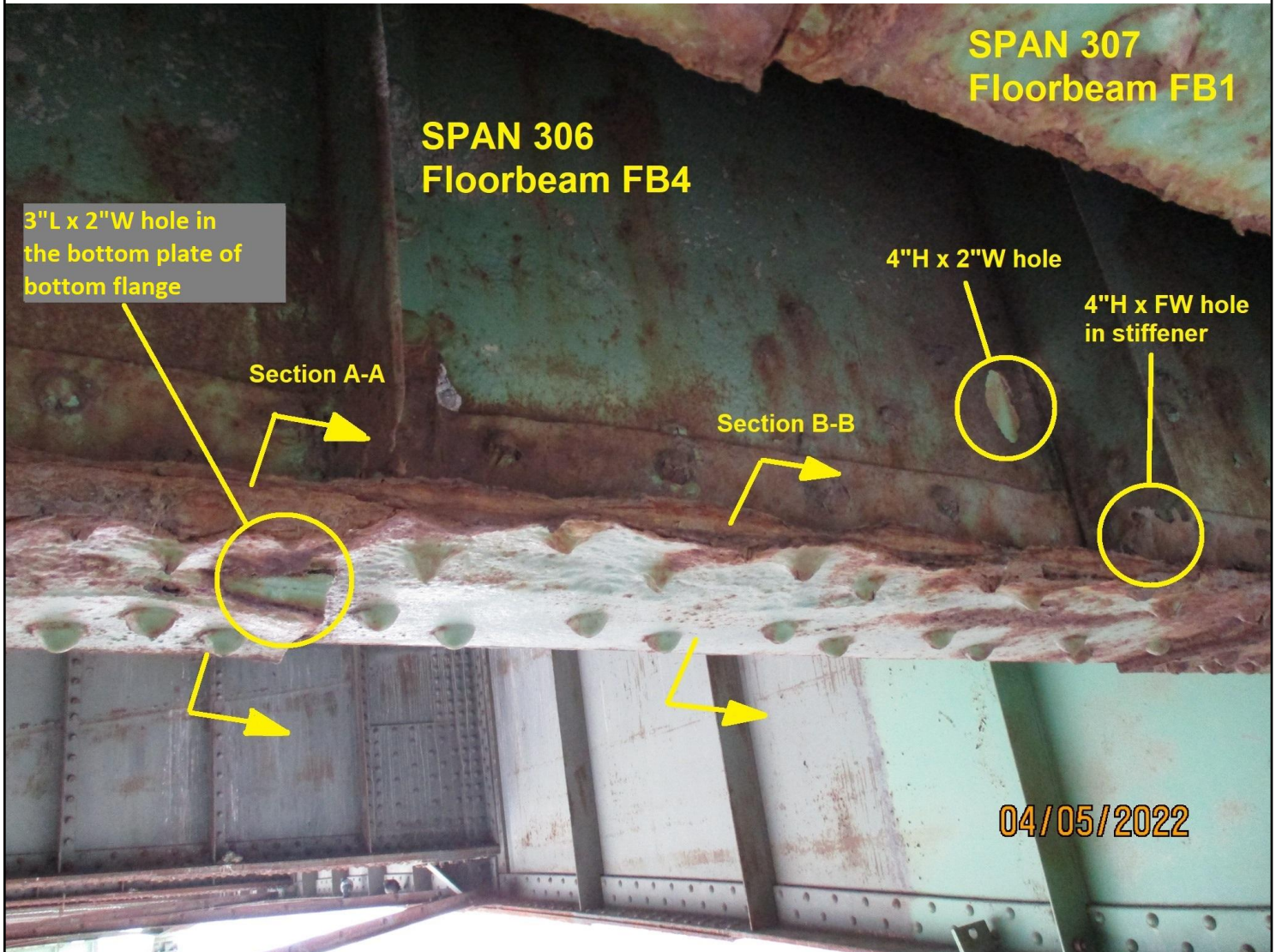


**Attachment Description:** Span 306 at Pier 306, Floorbeam FB4 begin face between Girders G1 and G2. Bottom flange deterioration with edge section loss and holes. Looking End.



Photo Number: 3

Photo Filename: IMG\_3592.JPG

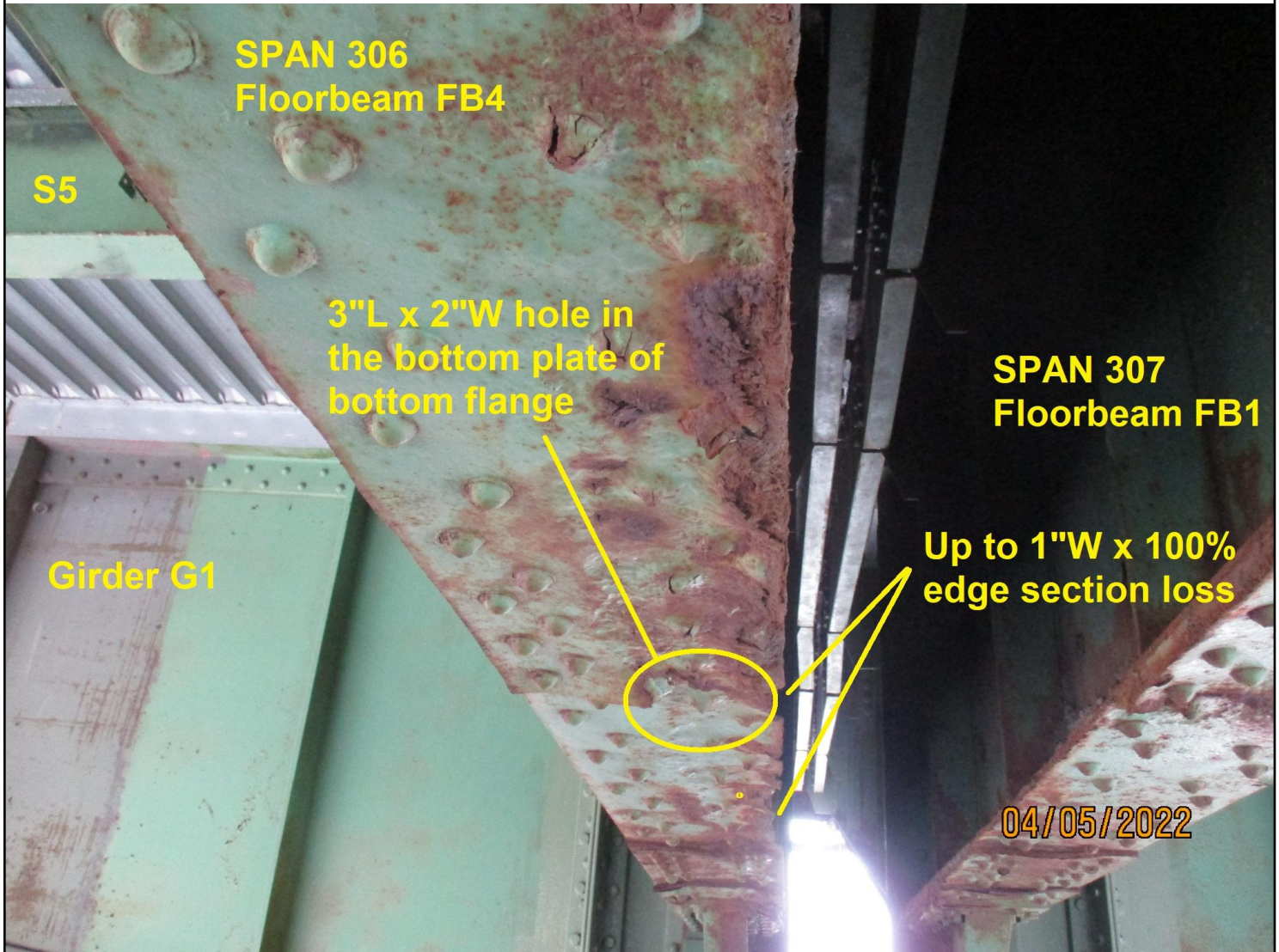


**Attachment Description:** Span 306 at Pier 306, Floorbeam FB4 between Girders G1 and G2. Bottom flange deterioration and corrosion holes in vertical stiffeners. Looking Begin Left.



Photo Number: 4

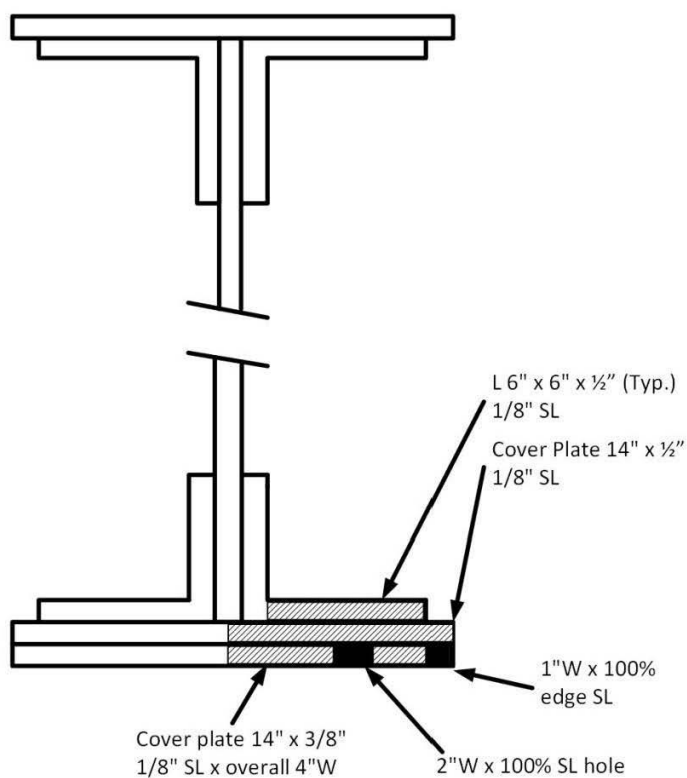
Photo Filename: IMG\_3563.JPG



**Attachment Description:** Span 306 at Pier 306, Floorbeam FB4 between Girders G1 and G2. Heavy pitting and 100% edge section loss in bottom flange. Looking Left.

Photo Number: 5

Photo Filename: YFNB22~2.JPG



\*For section A-A see  
photograph number 3

### **Section A-A**

**N.T.S.**

$$\text{Bottom Flange area} = 12" \times 0.5" + 14" \times 0.5" + 14" \times 0.375" = 18.25 \text{ in}^2$$

$$\text{Remaining Bottom Flange Area} = 6" \times 0.5" + 6" \times 0.375" + 7" \times 0.5" + 7" \times 0.375" + 7" \times 0.375" + 2" \times 0" + 1" \times 0" + 4" \times 0.25" = 15.0 \text{ in}^2$$

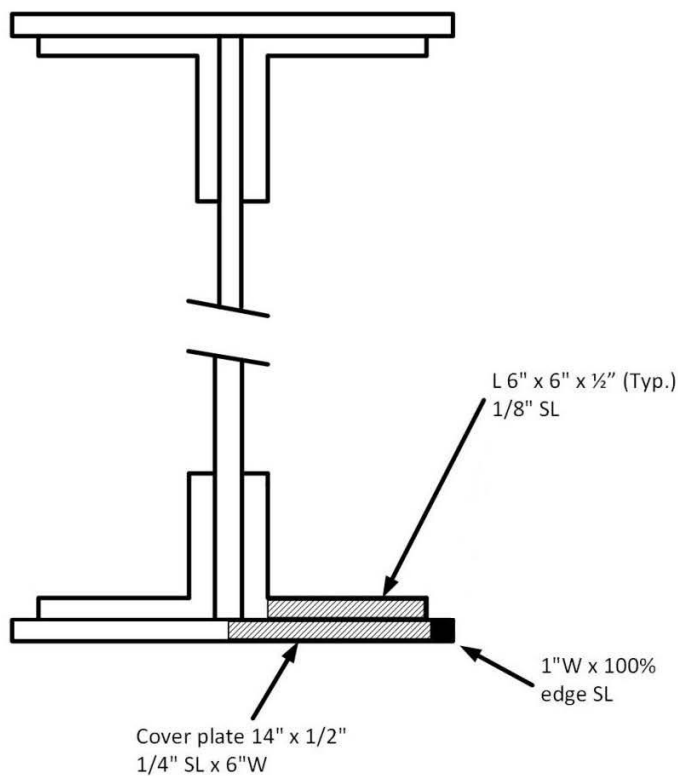
$$\text{Overall Section Loss} = (1 - 15/18.25) \times 100\% = 17.8\%$$

### **SPAN 306 FLOORBEAM FB4 at PIER 306**

***Attachment Description: Section A-A Sketch in SN306 at Pier 306 Floorbeam FB4***

Photo Number: 6

Photo Filename: YFNB22~1.JPG



\*For section B-B see  
photograph number 3

### **Section B-B**

**N.T.S.**

$$\text{Bottom Flange area} = 12" \times 0.5" + 14" \times 0.5" = 13 \text{ in}^2$$

$$\text{Remaining Bottom Flange Area} = 6" \times 0.5" + 6" \times 0.375" + 7" \times 0.5" + 6" \times 0.25" + 1" \times 0" = 10.25 \text{ in}^2$$

$$\text{Overall Section Loss} = (1 - 10.25/13) \times 100\% = 21\%$$

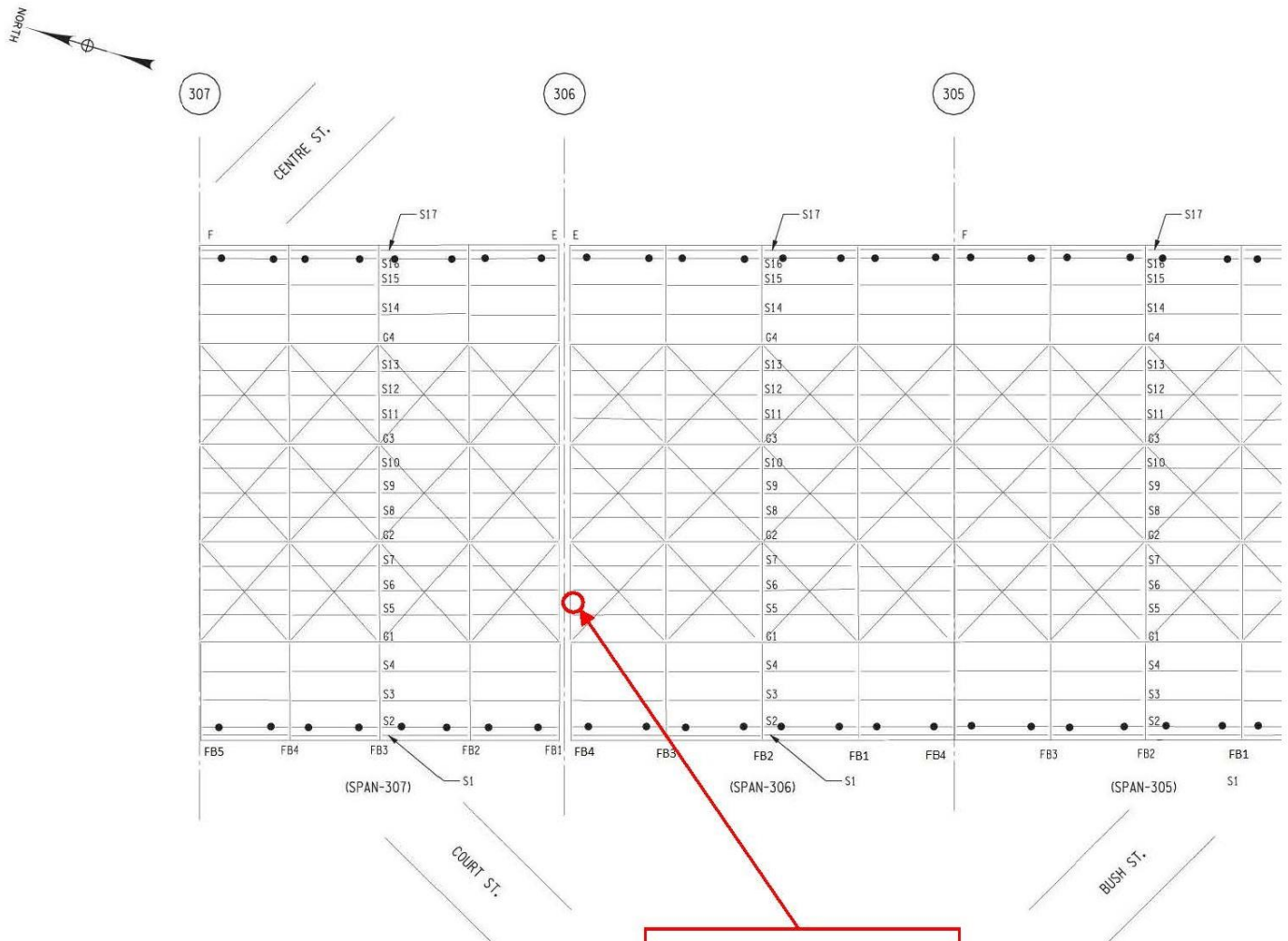
### **SPAN 306 FLOORBEAM FB4 at PIER 306**

***Attachment Description: Section B-B Sketch in SN306 at Pier 306 Floorbeam FB4***



Photo Number: 7

Photo Filename: SN306 FB4\_Framing Plan - 2022.jpg

**LEGEND:**

E - Expansion Bearing Element PR311

F - Fixed Bearing Element PR 313

G - Girder Element 107

S - Stringer Element 113

FB - Floorbeam Element 152. Non-redundant floorbeams require 100% Hands on Inspection.

● - Weld at end of partial length cover plate. Category E' - Weld requires 100% Hands on Inspection.

■ - Gusset plate welded to bottom flange for lateral system requires 100% Hands on Inspection.

★ - Vertical hanger welded to midspan of stringer bottom flange requires 100% Hands on Inspection

**YELLOW FLAG  
LOCATION  
No. NB2228W020**

**Attachment Description: SN306 FB4 at Pier 306 Framing Plan**